

Sub: Construction Management System - Circular No. - 16.**Ref: Guidelines for site management during execution of works.****With in 15 days of issue of Notice to proceed;**

1. It should be ensured that sufficient number of supervising staff has been placed by DSCs & contractor at all project sites for effective & daily supervision of the works. Monthly mobilization plan should be prepared for each work site. EE IPIUs should pursue with management of DSCs & contractor to get adequate number of qualified, competent and knowledgeable persons of high integrity.
2. The site offices & laboratory should be immediately established by the contractor. The site office should consist of required Site registers, Formats, QA & QC manual, BSR, Relevant codes, Standard specifications, copy of contract agreement, drawings, level books etc. The laboratory should consist of all the required testing equipments and the detailed procedures for conducting tests should be placed in the laboratory. The supervisory staff should read and understand all relevant IS, Specification books, QA & QC etc.
3. Contractor should be given the mobilization advance as soon as possible after fulfilling the conditions of the Agreement and to the satisfaction of the EE IPIU. Early mobilization advance should facilitate cash flow of the contractor there by speeding up the progress of contract.
4. The critical items / land marks / stages should be identified where final inspection is a must by the senior engineers of DSC & IPIU.
5. CPM chart should be prepared by the DSC with the assistance of Contractor and IPIU and review it monthly with the actual progress of the work.
6. The Contractor should be made aware of his responsibilities in writing in the very beginning, especially regarding QAQC Manual, Standard Specifications, MPR's etc.
7. The action for approval of material and concrete design mix should be immediately taken up. The EE IPIU may ask the contractor to adopt the design mix already approved for other contract in the project, if found suitable to the conditions of the work and if acceptable to the EE IPIU.
8. The requirement of material & equipments and their procurement schedule shall be finalized in accordance to the work plan and confirmatory surveys etc. The Essentiality certificates should be processed by the IPIU with in a week of NTP.
9. It should be ensured that alignments, reference grids and benchmarks are established and checked by the Senior Engineers of IPIU & DSC.
10. The contractor should do all the works in the contract by him only, however in case of any sub-contract; it should be open and transparent. The sub-contractor firm as well as the agreement between main and sub-contractor should be approved by EE IPIUs and it should be on the record. The EE IPIU should satisfy himself regarding sub Contractor's qualification, experience, technical capacities and financial strength of its organization, and it is also important to see that sub contractor does not enter into any financial un-viable agreement. In such cases it is quite likely that sub contractor may try to compromise with quality & safety standards of RUIDP.

During construction:

11. It should be ensured that no frequent changes are done in specifications, drawings and other relevant information during the period of the contract.
12. The variations in the contract should be analyzed as early as possible and the approval should be issued to the contractor immediately. The contractor should not be asked to execute any such work without written order from the competent authority.
13. The DSC as well as IPIU engineers should inspect and ensure the quality of work to desired specifications, conduct tests, check the measurements daily and record the same in the field book, measurement book etc.
14. The senior engineers of IPIU & DSC, other than the Jen/AEn IPIU and Support Engineer DSC, should visit the site at least on alternate days and make remarks of their site inspection in the site order book positively. However they should be constantly in touch with the ongoing site activities for the rest of the time.
15. The identified stages of the work should be inspected by the senior engineers of IPIUs & DSCs after completion and the EE IPIUs in consultation with the DSCs should record quality certificate immediately after the inspection for every completed stage before starting the work for next stage.
16. Third Party inspection of the materials / equipments has to be carried out as specified in the Contract or as per specific requirement to the work by the designated agency. These inspections should be witnessed alternatively by IPIU / DSC personnel.
17. Any substandard work should not be accepted and the contractor should be informed in writing to remove it. Remark should be made in the site inspection register immediately. There should not be any verbal communication in this regard.

Quality Assurance:

18. The quality output is essence of the contract. It should be taken as contribution to value creation. High performance work systems, high caliber employees and converting personnel knowledge in to organizational knowledge should be adopted with integrity, devotion and attitude towards achievement of objective of quality.
19. The DSCs & IPIUs should feel equally responsible for the quality, safety and environmental & social safeguards, quantity of the work and completion of work as per work plan and timely payment to the contractor.
20. To assure the quality and desired out put, the following should be kept in mind:
 - ✓ Approve the material and design mix in the initial stage.
 - ✓ Check the alignment and the layout.
 - ✓ The storage facility for material at site should be checked.
 - ✓ Check supply of material at site is on time as per schedule.
 - ✓ Conducting required tests on site as well as in laboratory.
 - ✓ Analysis of the test results by senior authorities of IPIU & DSC.
 - ✓ Witnessing of the tests as prescribed in the manual and putting signatures.
 - ✓ Check the measurements and required specifications at site
 - ✓ Inspect the site thoroughly
 - ✓ Removal of the not acceptable work
 - ✓ Check for necessary tools/kits/facilities required for safety, environmental & social safeguards are in place
 - ✓ The logistics and mobility should not be a constraint in achieving the quality.

Working Ethics:

21. Lack of communication is not desirable for better performance of the work. There should be proper coordination with the consultants, better rapport between client

and contractor, better formal communication systems and proper crisis management.

22. In order to ensure clean and transparent execution of contracts, IPIU and DSC should repose full confidence in the contractor. At the same time IPIU & DSC should curb even the slightest malpractices observed in any member of IPIU/ DSC/ Contractor. Our belief in ethical practices should be transmitted to all the members of IPIU/ DSC/ Contractor.

Contract Administration:

23. More emphasis should be given by IPIUs in making timely decisions, replying to the letters from contractors with in time, better orientation of IPIU Engineers in Contract administration, more involvement of line agencies during execution of works, more vigorous follow up of issues related to approval from different departments etc. This can be better achieved by involving line agencies during execution of the works and more & more site visits by PMU/PMC personnel of the work sites.
24. It is necessary that all concerned supervising personnel from DSC & IPIU are well aware of all aspects of the designs of the packages and all provisions of Contract documents. All project personnel should thoroughly study designs and conditions of the contract documents, including the duties and responsibilities of the Engineer, Employer and Contractor.
25. The EE IPIU shall communicate decisions to the contractor with in time limit described in the Contract. Issues or problems, if any, in this regard may be resolved by consulting PMC / PMU. In no case the reply should be delayed beyond the time limit.
26. There is need for greater involvement of the local agencies and District Administration in the project. IPIUs should regularly coordinate and inform local agencies of the project progress, successes and problems individually and through CLC meetings. EE IPIUs should arrange regular site tour programs of the local officials and public representatives like MLAs, Mayors, and Chairpersons etc.
27. The matters related to approvals from other agencies may lead to delay in project implementation, e.g: Railway authority approvals for Railway crossings; Ministry Of Forest for tree cutting and transfer of lands; Electricity board for power line shifting, power connections; Pollution Control Board approvals for STPs, etc. EE IPIUs should take proactive actions to pursue and obtain all such approvals at the earliest possible time. Applications for approvals shall be made even before contracts are awarded. Such delays can become Compensation Events in cases where delayed approvals impede Contractors' progress or result in increased costs.
28. The final scope of work to be executed should be well defined and communicated to contractor well in time. XEn IPIU and ACM DSC should critically examine each package for its detailed scope of work.
29. The package in-charge and controlling officer PMU should visit at least two project cities in a month and assist in resolving the issues related to their packages. They should thoroughly visit the sites, sit down with the in-charge package IPIU / DSC / contractors representative at site office and observe details of all pending issues related to site and contract administration problems, discuss them in detail to find out best solution with respect to site conditions. PO (Mon.) will separately issue such program for every month for PMU officers.
30. Team Leader IPMC/Expert should make regular site visits in such a manner that one of them visits every project city in a month to assist IPIUs in speedy resolution of site problems during execution and to suggest best practices in execution of the works.
31. Team Leader PMC should develop training programs for IPIUs and DSCs and offer training to all engineers of the towns. IPIU engineers should be exposed in contract

administration procedures by conducting such training programs / works the Capacity Building Program.

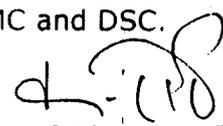
Contract Monitoring:

32. EE IPIU should take immediate necessary action for first instance of delay slow progress of the work as per agreement and agreed work plan.
33. Weekly meetings should be held by EE IPIUs with IPIU engineers, DSC engineers, and engineers of contractors preferably for each contract separately at work site to monitor the progress & sort out the site problems so as to ensure timely completion of the work. Minutes of these meetings should be issued.
34. Monthly progress report as per standard format given in the QA & QC manual should necessary be submitted by contractor to IPIU as detailed at page no.151 to 171 and by DSC / IPIU to PMU / PMC at page no.173 to 183.
35. EE IPIUs should send a monthly status report on the actions taken for the enforcement of construction management system highlighting the major issues by the first week of next month.
36. EE, IPIUs should review the performance of the each construction supervision personnel of the DSCs regularly and if the output of any personnel is not up to the desired standards or is involved in any malpractices, he should be immediately recommended for demobilization.
37. EE, IPIUs should review the list of the personnel being placed by the contractor and ensure that good quality technically competent persons have been placed by the contractor for execution of work. The contractor should immediately be asked to replace the persons which are not competent to carry out the work with desired standards and in scheduled time.

On-site Training:

38. DSCs should conduct trainings monthly at every work contract for assurance of quality, safety and environmental & social safeguards. The staff of IPIU, supervising staff of DSC & Contractor, technicians, operators and labour at site should be given on site training for their own respective assignments. It should be ensured that the personnel engaged on the supervision of the contract should be fully conversant with the quality parameters, safety and environmental & social safeguards, its documentation and techniques of supervision.

This circular should be abided by all the members of IPMU, IPIU, IPMC and DSC.


(Karni Singh Rathore)
Project Director

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Copy to following for information and necessary compliance / action:

1. Addl. PD -I & II/ FA/ Dy. PD (T)/ Dy. PD (Adm.)/ SE (WW)/ WS / PO (all)/ Sr. AO / All APOs / AAO/ PA to PD PMU, RUIDP, Jaipur.
2. Chief Engineer, PIU, Bisalpur, RUIDP, Jaipur.
3. SE Jodhpur, Executive Engineer/APO's, IPIU, RUSDIP (Concerned), Alwar, Baran-Chhabra, Barmer, Bharatpur, Bundi, Chittorgarh, Churu, Dhaulpur, Jaisalmer, Jhalawar-Jhalrapatan, Karauli, Nagaur, Rajsamand, Sawai Madhopur and Sikar.
4. Team Leader IPMC, DSC-I, Bharatpur, DSC-II, Nagaur, DSC-III, Jhalawar, RUSDIP.
5. DSC-I, Alwar/ Dholpur/ Karauli/ Sawai Madhopur, DSC-II, Churu/ Jaisalmer/ Barmer/ Sikar and DSC-III, Chittorgarh/ Rajsamand/ Bundi/ Baran, RUSDIP.
6. ACP, RUIDP, Jaipur to send by e-mail and put up the Guidelines on the website.


Dy. Project Director (T)